

Amendments to the Claims

This listing of claims will replace all prior versions, and listings, of the claims:

1. - 5. (canceled)

6. (previously presented) An actuator, comprising:

- a stationary guide;
- a piezoelectric motor pushing on the guide; and
- a carriage at least partially surrounding the motor and movable back and forth along the guide at the urging of the motor to move a head assembly with respect to a tape.

7. (canceled)

8. (original) A head carriage and actuator assembly, comprising:

- a stationary guide;
- a carriage movable along the guide;
- a head carried by the carriage; and
- a piezoelectric motor attached to the carriage opposite the head such that the guide lies between the head and the motor, the motor comprising a base attached to the carriage and a beam of piezoelectric material attached to the base, a free end of the beam pushing on the guide.

9. (original) A head carriage and actuator assembly for a tape drive, comprising:

- a first guide rail;
- a second guide rail spaced apart from the first guide rail;
- a carriage supported on and movable along the first and second guide rails;
- a magnetic head carried by the carriage, the head positioned adjacent to the first guide rail opposite the second guide rail such that the first guide rail lies between the head and the second guide rail; and

a piezoelectric motor attached to the carriage and operatively coupled to the first guide rail such that the motor when energized moves with the carriage along the guide rails.

10. (original) The actuator of claim 9, wherein the motor comprises a base and a beam of piezoelectric material attached to the base, the base of the motor attached to the carriage and a free end of the beam pushing on the first guide rail.

11. (original) The actuator of claim 9, wherein the motor is attached to the carriage between the first guide rail and the second guide rail.

12. (original) The actuator of claim 9, wherein the carriage surrounds the motor.

13. (original) A head carriage and actuator assembly, comprising:

- a stationary guide;
- a carriage movable along the guide;
- a head carried by the carriage; and
- a stationary piezoelectric motor pushing on the carriage such that the motor when energized moves with the carriage along the guide.

14. (original) A tape drive, comprising:

- a take-up reel;
- a stationary guide;
- a carriage movable along the guide;
- a head carried by the carriage;
- a tape path extending past the head to the take-up reel;
- a piezoelectric motor attached to the carriage and pushing on the guide such that the motor when energized moves with the carriage along the guide; and
- an electronic controller configured to receive read and write instructions and data from a computer or other host device and to control operation of the take-up reel, the actuator and the head.

15. (original) The tape drive of claim 14, wherein the controller is configured to position the head according to the following method:

- stopping the carriage at a known position;
- the motor moving the carriage a first step from the known position;
- counting the step;
- comparing the step count to a target step count;
- if the step count is less than the target step count, the motor moving the carriage another step; and
- repeating moving, counting and comparing until the step count is equal to the target step count.